JOURNAL OF SOUND AND VIBRATION

EDITOR
P. E. Doak

EDITORIAL BOARD
C. W. Bert
H. O. Berktay
R. E. D. Bishop
A. Cabelli
B. L. Clarkson
D. G. Crighton
E. H. Dowell
C. Gazanhes
G. M. L. Gladwell
M. Heckl
D. J. Johns
A. W. Leissa
S. Lindblad
D. J. Mead
H. G. Morgan
A. Powell
C. G. Rice
J. B. Roberts
D. W. Robinson
J. D. Robson
W. Soedel
A. Tondl
G. B. Warburton
R. G. White
G. Yamada

VOLUME 123
1988

ACADEMIC PRESS
LONDON SAN DIEGO
NEW YORK BOSTON
SYDNEY TOKYO TORONTO
ISSN 0022-460X

CONTENTS OF VOLUME 123

Number 1, 22 May 1988

Yang, Z. C. and Zhao, L. C., Analysis of limit cycle flutter on an airfoil in incompressible flow 1

Liu, W. H. and Huang, C.-C., Vibrations of a constrained beam carrying a heavy tip body 15

Peat, K. S., The transfer matrix of a uniform duct with a linear temperature gradient 43

Currie, I. G. and Cleghorn, W. L., Free lateral vibrations of a beam under tension with a concentrated mass at the mid-point 55

Jarvis, D. R., The accuracy of the electrostatic actuator method of determining the frequency response of condenser microphones 63

Done, G. T. S. and Patel, M. H., The use of smooth bending moment modes in helicopter rotor blade vibration studies 71

Cartmell, M. P. and Roberts, J. W., Simultaneous combination resonances in an autoparametrically resonant system 81

Wu, J.-R. and Liu, W. H., Vibration of rectangular plates with edge restraints and intermediate stiffeners 103

Takahashi, K. and Konishi, Y., Dynamic stability of a rectangular plate subjected to distributed in-plane dynamic force 115

Hutchinson, J. R., Response of a free circular plate to a central transverse load 129

Yang, I. H. and Shieh, J. A., Vibrational behaviour of an initially stressed orthotropic circular Mindlin plate 145

Jordanov, I. N. and Cheshankov, B. I., Optimal design of linear and non-linear dynamic vibration absorbers 157

Tsujino, T., Shima, A. and Oikawa, Y., Effects of polymer additives on the generation of subharmonic and harmonic bubble oscillations in an ultrasonically irradiated liquid 171

Letters to the Editor

Sinha, A., Optimal vibration control of flexible structures for specified modal decay rates 185

Luzzato, E. and Ortola, E., The characterization of energy flow paths in the study of dynamic systems using S.E.A. theory 189

Number 2, 8 June 1988

Peat, K. S., A numerical decoupling analysis of perforated pipe silencer elements 199

Langley, R. S., A variational formulation of the FPK equations with application to the first passage problem in random vibration 213

Balilah, Y. A. and Gibbs, B. M., The measurement of the transmission loss of single leaf walls and panels by an impulse method 229

LALL, A. K., ASNANI, N. T. and NAKRA, B. C., Damping analysis of partially covered sandwich beams 247

SALIKUDDIN, M. and AHUJA, K. K., A device to generate high frequency noise from commercially available low frequency acoustic drivers 261

AMIROUCHE, F. M. L. and IDER, S. K., Simulation and analysis of a biodynamic human model subjected to low accelerations—a correlation study . . 281

MAIDANIK, G. and DICKEY, J., Acoustic behavior of ribbed panels 293

MAIDANIK, G. and DICKEY, J., Singly and regularly ribbed panels 309

TABARROK, B., SINCLAIR, A. N., FARSHAD, M. and YI, H., On the dynamics of spatially curved and twisted rods—a finite element formulation . . 315

VAN DOOREN, R., On the transition from regular to chaotic behaviour in the Duffing oscillator 327

FRIDMAN, M., The transient and steady states of the Bouasse–Sarda regulator 341

SANKARANARAYANAN, N., CHANDRASEKARAN, K. and RAMAIYAN, G., Free vibrations of laminated conical shells of variable thickness 357

Letters to the Editor

AL-KAABI, S. A. and AKSU, G., Natural frequencies of Mindlin plates of bilinearly varying thickness 373

MAURIZI, M. J. and BELLES, P., Vibrations of non-uniform, simply supported beams 380

SANZI, H. C., LAURA, P. A. A. and DE GRECO, B. H. V., Numerical experiments on the determination of the fundamental frequency of transverse vibration of non-uniform rectangular plates 382

TO, C. W. S., On dynamic systems disturbed by random parametric excitations . 387

NUMBER 3, 22 JUNE 1988

KAPITANIAK, T., Chaos in a noisy mechanical system with stress relaxation . 391

DIMITRIADIS, E. K. and PIERCE, A. D., Analytical solution for the power exchange between strongly coupled plates under random excitation: a test of statistical energy analysis concepts 397

TAMURA, M., Visualization of acoustic quantities in audible sound fields . . 413

BYRNE, K. P., Calculating the acoustical properties of fabric constructions . 423

INNES, D. and CRIGHTON, D. G., Power radiated by an infinite plate subject to fluid loading and line drive 437

FARASSAT, F. and MYERS, M. K., Extension of Kirchhoff's formula to radiation from moving surfaces 451

CAI, C. W., CHEUNG, Y. K. and CHAN, H. C., Dynamic response of infinite continuous beams subjected to a moving force—an exact method . . 461

IBRAHIM, R. A. and LI, W., Structural modal interaction with combination internal resonance under wide-band random excitation 473

RAJAN, S. and DAVIES, H. G., Multiple time scaling of the response of a Duffing oscillator to narrow-band random excitation 497

SANDBERG, G. and GÖRANSSON, P., A symmetric finite element formulation for acoustic fluid–structure interaction analysis 507

DUMIR, P. C. and BHASKAR, A., Some erroneous finite element formulations of non-linear vibrations of beams and plates 517

GIBIAT, V., Phase space representations of acoustical musical signals . . . 529

MECHEL, F. P., Notes on the radiation impedance, especially of piston-like radiators 537

Letters to the Editor

ELLIS, J. W., Non-stationary roll response to random beam waves 573

SOULODRE, G. A., POPPLEWELL, N., LAVOIE, M. C. and BRADLEY, J. S., A suggested modification to the Fairbanks rhyme test 578

ANNOUNCEMENTS 581

BOOK REVIEWS 589

HUMAN RESPONSE TO VIBRATION 593

INDEX TO VOLUME 123 597

Copyright © 1988, by Academic Press Limited
ALL RIGHTS RESERVED
No part of this volume may be reproduced in any form, by photostat, microfilm, or any other means, without written permission from the publishers.
Printed in Great Britain